VF 100 SMT Desoldering System Operations Manual (P/N 5050-0499)

1. Packing Contents (P/N 8007-0356-P1 or 8007-0357-P1)

a. VF 100 System (1 each)
b. Hand-piece (1 each)
c. Power Cord (1 each)
d. Standard Tip (1 each)
e. Filter Cartridge (1 each)
f. Secondary Filter (1 each)
g. Filter Chamber (1 each)

2. Specification

Station	
Voltage 8007-0356-P1 8007-0357-P1	 120 VAC 230 VAC
Power Consumption	100 W max
Pump Type	Diaphragm (2 sets)
Dimensions	227 mm (9”) H x 130 mm (5.1”) W x 118 mm (4.7”) D
Weight	3.5 KG (7.7 Pounds)
Power Cord Length	1.2 m (48”)

Hand-piece	
Heater Type	24 V, Ceramic, 80 W max, Zero point switching
Resistance	100 MΩ at 400° C (750° F)
Maximum Vacuum	500 mm Hg
Hot Air Flow	3 lpm
Temp Range	200-400° C (390-750° F)
Dimensions	120 mm (4.75”) H x 195 mm (7.7”) W x 28 mm (1.1”) D
Weight	120 g (4.1 oz) without cord

Figure 1: Station

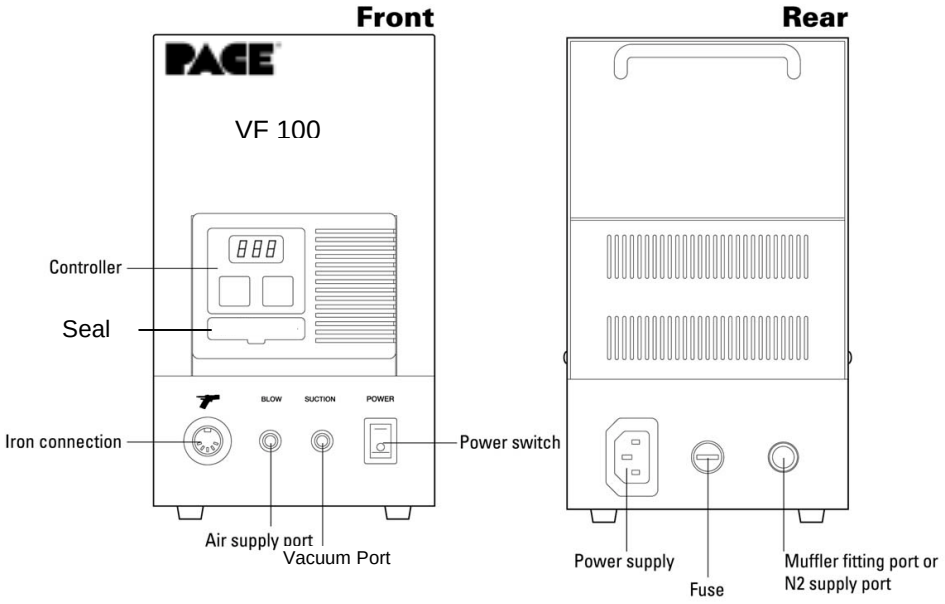
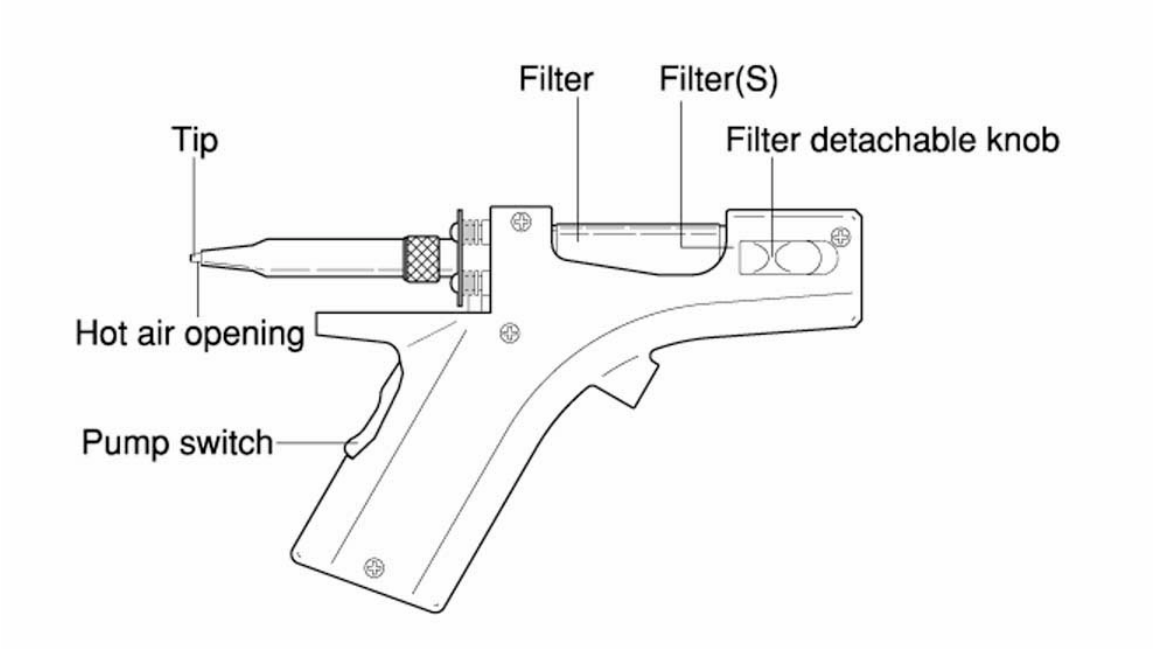


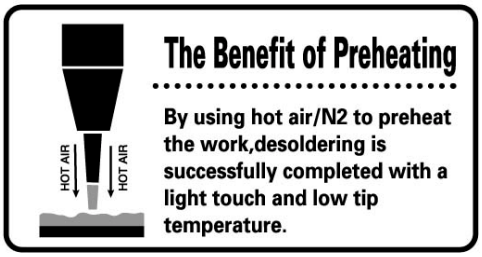
Figure 2: Hand-piece



3. Safety Information

a. Do not contact the Heater or its peripheral parts during operation.
b. Once turned off, let the unit cool completely before contacting.
c. When using Fluxes, use fume extraction equipment or use in a well ventilated area to minimize operator exposure to fumes.

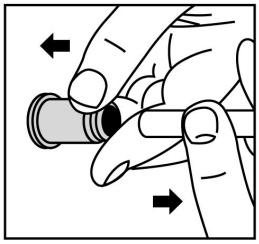
4. Features


The Benefit of Preheating
By using hot air/N2 to preheat the work,desoldering is successfully completed with a light touch and low tip temperature.
HOT AIR
HOT AIR

As shown in the left illustration, the hot air blowing from the circumference of the tip enables effective pre-heating of the work.

5. Set-Up

a. Connect Power cord, Plug & Tube of Iron to Main body. Fit a black tube marked B to the inlet port marked with an arrow pointing out and the black tube marked S to the inlet port marked with an arrow pointing out.



b. Do not touch the tubes with the heater or tip.

c. Push the Power switch on. LED of temperature indication of Controller will be on.

d. Adjust the installed temperature of the tip end with the up-down key of the Controller. The adjusting method is stated in Section 6: Temperature Installation.

6. Operation

a. Allow the unit to warm up for 2 or 3 minutes after turning the unit on.
b. Gently depress the two-position switch on the hand-piece and hot air will begin to come out of the hand-piece.
c. With the tip 1-2mm from the PCB, preheat the area to be desoldered using the hot air.
d. After pre-heating, gently place the tip on the solder to be removed.
e. When the solder has become molten, depress the two-position switch all the way and the vacuum will activate, removing the molten solder.

f. When the reverse side of PCB is preheated with the optional “HS-100”, desoldering will be faster and the finish will be better.
g. The joint use of “PH-100” is recommended to handle higher mass PCBs and when using the slim tip.

7. Temperature Control

a. Set the tip temperature using the up/down key of the Controller. The controller is set at a default of 380° C.

b. To change the preset temperature, open the seal of the Controller (See Figure 1), located under the digital display and adjust the VR “Preset” located on the right hand side. Turning it clockwise will cause the temperature to increase.

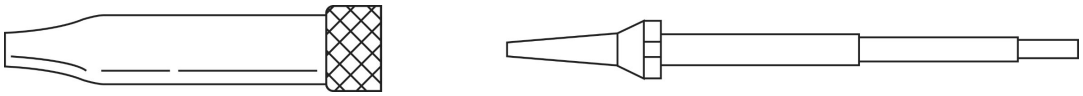
8. Temperature Calibration

a. Temperature calibration can be done with the VR “CAL” in the Controller.

- Open the seal of the Controller (See Figure 1)
- Calibrate the temperature with VR “CAL”. Use a temperature measuring apparatus to measure the temperature of the tip.

Note: The maximum set temperature when the standard tip is used is 400° C and 350° C when using the slim tip.

9. Tip Replacement



To replace the tip, remove the heater holder as shown in the illustration above.

10. Tips

a. A standard tip comes standard in the hand-piece. An optional Slim Tip is available for working on small or

Standard tip	∅:3mm ℓ:4mm	Fitted as standard
Slim tip	∅:1.8mm ℓ:7.5mm	Optional for small/slim works

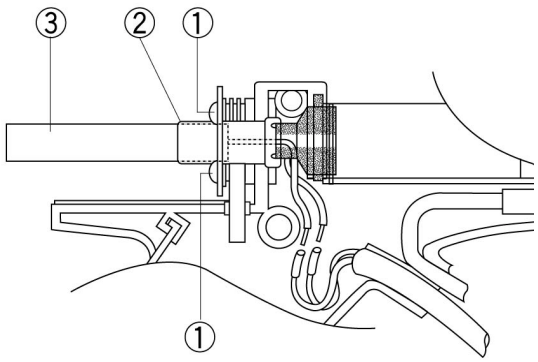
access restricted areas. For best performance, the HS 100 should be used when the slim tip is used. Because the slim tip is long and thin, heat transfer is reduced when compared to the standard tip

b. Even when using the standard tip, using the PH 100 allows for more efficient desoldering.

Note: The opening of the slim tip is 0.8mm (.03”), so it may clog. Please clean the hole with the cleaning pin from time to time. After clogging, the vacuum response will be slow or will be non-existent.

11. Heater Replacement

a. Firstly remove the 4 screws on the hand-piece body.
b. To replace the heater (3), remove the 4 screws (1) of the mounting section of the heater holder (2) as illustrated as follows.

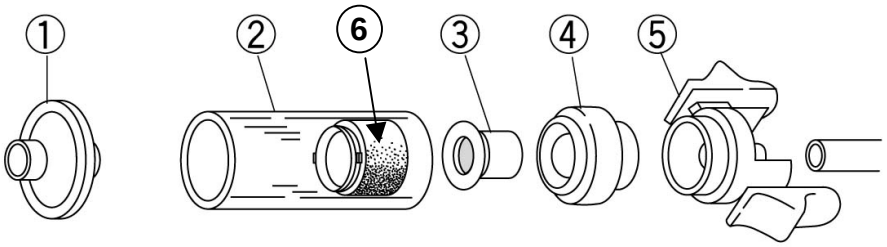


Note: It is possible that the unit will have to be recalibrated when the heater is replaced. Calibrate it in the same manner as in Section 7.

12. Solder Collection Chamber and Filters

a. Removed solder will accumulate inside the filter cartridge (2). Clean the cartridge of the solder waste with tweezers

b. When more than one fourth of the felt portion (6) is discolored by dirt, replace it with a filter cartridge. At the same time, replace the secondary filter (3).



Note: When detaching the filter cartridge, clean the adjacent area to prevent the air leakage.

c. To remove filter cartridge, pull the slide backwards to remove the filter cartridge. To fit the cartridge, push the slide forward and be sure it fits into the filter chamber (2) securely.

13. N2 Gas

Most applications can be completed successfully using hot air. However, when the N2 is used, the finish will be improved, less or no flux can be used, and the tips will last longer. If using N2, remove the muffler located at the backside of the station and fit an adapter with R1/8, and then supply 0.5-1.0 I/min. N2 from a Nitrogen farm, such as PACE's NF 500 (P/N 8110-0001) and NF 1000 (P/N 8110-0002) is recommended.

14. Muffler

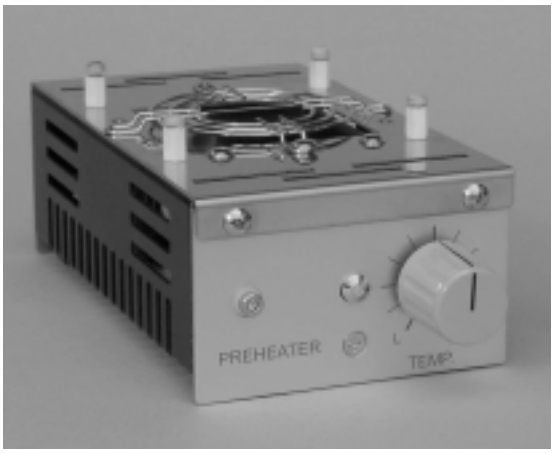
A muffler has been fitted to the back of the VF 100 to reduce the noise level. This filter will become dirty over time and will lower the efficiency of the system. This filter should be cleaned every 6 months. . Wash the muffler with water and a neutral detergent

15. Major Replacement Parts

Part Name	Part Number	Remarks	
Heater	6700-0001-P1	For Iron	
Filter Cartridge	6700-0002-P1	For Iron	
Filter	6700-0003-P1	For Iron	One Pack contains 5 pieces
Secondary Filter	6700-0004-P1	For Iron	One Pack contains 5 pieces
Standard Tip	6700-0005-P1	For Iron	
Slim Tip	6700-0006-P1	For Iron	
Pump Assembly	6700-0007-P1	For Station	

16. Optional Pre-heater HS-100

a. The HS 100 is available as an option to assist with desoldering. It is recommended when working high mass PCBs or when the VF 100 is used with the slim tip.
b. HS 100 comes with 2 additional board supports for use on PCBs larger than the HS 100.



Voltage **8007-0358-P1** **8007-0359-P1**	 120 VAC 230 VAC
Heater	Ceramic, 80 W
Temp. Adjustment	Zero point switching 50-100%
Dimension	142mm (5.6”) W x 50 (2”) mm H x 80mm (3.2”) D
Weight	500 g (1.1 pounds)

17. Maintenance

The maintenance should only be completed by qualified personnel designated by your company.

18. Regulation

The system is in conformity with the Low Voltage Directive and EMC Directive 73/23 EEC as last amended by EEC Directive 93/68/EEC.

19. Service

Please contact PACE or your local distributor for service and repair.

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